

R E M A R K S

Claims 1-3, 5-19 are pending in this application. The claims have been amended to be in the process format.

Support for the process step of claims 1 and 19 can be found in the paragraph bridging pages 26-27.

Claim 4 has been canceled.

Claim 18 has been added and finds support in the original application.

No new matter has been added by way of the above-amendment.

Issues Under 35 U.S.C. §112

Claims 1-17 are rejected under 35 U.S.C. §112, first and second paragraphs.

Applicants respectfully traverse each of the rejections.

In the outstanding Advisory Action, the Examiner did not mention these rejections. Accordingly, Applicants are unclear whether these rejections have been withdrawn.

The following comments regarding these rejections are identical to the comments made in the October 14, 2003 Amendment.

Specifically, the Examiner is objecting to the amendment to claim 1, which recites an "emulsion layer" (see line 7). The Examiner finds that there is insufficient written description support in the specification for this term such that the recitation of this term adds "new matter" to the disclosure. Also, the Examiner finds that the present specification does not describe the metes and bounds of this term rendering this term indefinite.

In response, Applicants respectfully submit that there is sufficient description in the specification of an "emulsion layer." The Examiner's attention is directed to the disclosure from page 150, line 11 to page 154, line 14 and at page 163, line 21. Specifically, the "emulsion layer" of claim 1 is defined as being the layer in which the silver halide emulsion is formed. At page 163, line 21, the specification indicates that the "emulsion layer" is an image forming layer. Also, the preparatory method for obtaining the silver halide emulsion is described at page 150, line 11 to page 154, line 14.

Accordingly, the present inventors were in possession of the heat-developable image recording material comprising a binder in an "emulsion layer" as defined in present claim 1, at the instant priority date. As such, withdrawal of the rejection under 35 U.S.C. §112, first paragraph is respectfully requested.

Also, the metes and bounds of the "emulsion layer" of claim 1 is sufficiently set forth to satisfy the requirements of 35 U.S.C. §112, second paragraph. As such, withdrawal of the rejection under 35 U.S.C. §112, second paragraph is respectfully requested.

Issues Under 35 U.S.C. §102 and §103

The following rejections are pending:

(1) claims 1-6 are rejected under 35 USC 102(b) or under 35 USC 103(a) as being unpatentable over European Patent 0911691 A1 (EP '691); and

(2) claims 7-17 are rejected under 35 USC 103(a) as being unpatentable over EP '691, Kato, Haring et al. - USP 5,637,449 and EP '764.

Applicants respectfully traverse each of the rejections.

The Examiner indicates that the outstanding issue with respect to the patentability of the present invention over the cited prior art is whether the latex taught in EP '691 contains halide ions in a concentration such that the halogen ion content of not more than 500 ppm, as presently claimed. The Examiner has taken the position that the latex taught in EP '691 would inherently have a halogen ion content of not more than 500 ppm as presently claimed, since the goal of EP '691 is to reduce the "ionic conductivity" of the polymer latex. EP '691 teaches that the ionic conductivity of the polymer latex is from 0.05 to 2.5 mS/cm. In order to obtain this reduced ionic conductivity, EP '691 purifies the latex with dialysis ion exchange resin or ultra filtration.

In order to further distinguish the present invention from EP '691, *in the October 14, 2003 Amendment*, Applicants amended claim 1 to recite that the polymer latex is "not subjected to purification through a desalting step." As noted in the first paragraph on page 26 of the present specification, the "desalting step" is defined to include purification with a dialysis membrane and purification with an ion exchange resin. Accordingly, the inventive claims, as defined in the October 14, 2003 Amendment do not include a polymer latex which has

been purified with a dialysis membrane or with an ion exchange resin as is required by EP '691.

In the outstanding Advisory Action, the Examiner replied to Applicant's October 14, 2003 Amendment by stating that the inventive phrase "not subjected to purification through a desalting step," relates to a step in the process of making the heat-developable image recording material, and is not given patentable weight in the inventive product claims.

In response to the Examiner's comments in the outstanding Advisory Action, Applicants have herein amended the claims to be in the process format. Accordingly, it is necessary that the Examiner gives patentable weight to the limitation that the polymer latex is "not subjected to purification through a desalting step."

As noted in the second full paragraph on page 4 of the present specification, JP-A-11-129629 (a patent in the same patent family as EP '691), the present inventors have found that the purification of latex with a dialysis membrane has a deleterious effect on the latex. This method disadvantageously tends to be accompanied with degradation of the coating property owing to the aggregation of latex as the latex is purified. The coating property is a measure of the streaks and repelling marks visually observed on the surface

of the sample after coating. The data from the specification clearly shows this effect.

The data from Tables 2 and 3 of the specification for Comparative Samples 103 and 203 which have been prepared with a latex (RP-2) purified using dialysis, as in EP '691 is shown in the following table. Also, the following table includes data regarding Inventive Samples 104 to 109, 204 and 205 which have not been purified with a desalting step.

Sample No	Binder for Image Forming Layer		Coating Property
	Species	Halogen Ion Content (ppm)	
103	RP-2	550	C
104	P-1	9	A
105	P-1	9	A
106	P-1	9	A
107	P-1	9	A
108	P-1	9	A
109	P-1	9	B
203	RP-2	550	C
204	P-1	9	A
205	P-1	9	A

As can be seen from this data, there is a marked reduction in the halogen ion content using the inventive method when compared

with the method of dialysis used by EP '691. This results in improved coating properties of the heat-developable image recording material. The criteria of evaluation: "A," "B" and "C" in Tables 1 and 2 of the present specification relate to the number of streaks and repelling marks upon coating. A value of "A" and "B" means that the number of streaks and repelling marks is 0 and 1, respectively, whereas a value of "C" means that the number of streaks and repelling marks is 2 to 4.

Thus, there is clearly a substantial difference in the coating property when using the inventive latex which is not purified in a desalting step when compared to the latex of EP '691.

Furthermore, the present invention has the added effect that the occurrence of a stain in the white background portion after the heat development processing is prevented by setting the halogen ion content to the specific value or less. On the contrary, EP '691 teaches the improved resistance to a change of color tone in a developed silver image. That is, EP '691 focuses on observing a change of color tone in a developed silver image, whereas in the present invention, the occurrence of a developing reaction in the white background portion (containing no-developed silver halide) is estimated.

These two phenomena are associated with a completely different mechanism. When the ion conductance of the binder used in Samples 104 to 108 is measured in the same manner as in

EP '691 (25%, 25°C), the result was that the ion conductance of the binder was 3.5 m/S. This value of ion conductance corresponds to the Comparative Example in EP '691. In view of the above, the present invention and EP '691 have a completely different technical concept from each other.

Since the cited references fail to teach or fairly suggest a method of purifying the polymer latex to have a halogen ion content of not more than 500 ppm without a desalting step, a *prima facie* case of anticipation and obviousness cannot be said to exist. Accordingly, withdrawal of the rejections are respectfully requested.

Conclusion

In view of the above-amendments and comments, Applicants respectfully submit that the claims are in condition for allowance. However, in the event the Examiner finds to the contrary, Applicants respectfully request that the Examiner enters this Amendment into the official record to place the application in better form for appeal.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact **Garth M. Dahlen, Ph.D., Esq.**, (Reg. No. 43,575) at the telephone number of the undersigned below.

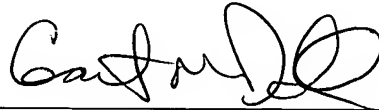
If necessary, the Commissioner is hereby authorized in this,

concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s)